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A NEW COMBINATION IN *DITHRIX* (ORCHIDACEAE)

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ABSTRACT

The orchid genus name *Dithrix*, which was validated by R.K. Brummitt in 1993 and typified with *Habenaria griffithii* Hook. f., renders superfluity and illegitimacy to the recently published genus name *Nujiangia* X.H. Jin & D.Z. Li, which is also typified with *H. griffithii*. The new combination **Dithrix griffithii** (Hook. f.) Ormerod & Gandhi is made.

KEY WORDS: *Dithrix*, "*Habenaria decipens*," *Habenaria griffithii*, *Habenaria* sect. *Dithrix*, *Nujiangia*, *Nujiangia griffithii*

Hooker (1890: 133, 165) validly published the name *Habenaria* sect. *Dithrix* Hook.f. and included a single species "*H. decipiens* Hook.f." He referred to "Hook.f., Ic. Plant. ined. – *Herminium*, Griff. Notul. iii. 270; Ic. Plant. Asiat. t. 285 f. 1" and cited the following type information: North-West India; *Edgeworth s.n.*, alt. 3000 ft; Lahul (India), alt. 4-5000 ft., *Thomson s.n.* — Distrb. Afghanistan, *Griffith*, (Kew Distrib., *5326*) Kurrum Valley (Pakistan), *Aitchinson* No. *322*.

Had Hooker (1890: 165) published his new species name "*H. decipiens*," it would be a later homonym and illegitimate (non Wight 1851). He (p. 197), however, realized his mistake and renamed his "*H. decipiens*" as *H. griffithii* Hook. f. Since both "*H. decipiens* Hook. f." and *H. griffithii* were proposed within the same publication and since "*H. decipiens* Hook. f." was rejected, "*H. decipiens* Hook. f." was not validly published and does not have any nomenclatural standing. The International Plant Name Index (2012), however, had indexed *H. decipiens* Hook. f. but had not indexed *H. griffithii*.

In his orchid treatment, Renz (in Rechinger 1978: 64) cited "*Griffith 5326*" from Afghanistan as the type. Since Hooker (1890: 165) cited syntypes, Renz's citation "*Griffith 5326*" as the type amounts to an inadvertent lectotypification. As Hooker mentioned, "*5326*" is not Griffith's collection number but is Kew's distribution number. Although Renz did not cite the herbarium housing the type, it is reasonable to assume that the type is at K. In a personal communication, Andre Schuiteman (K) informed us that Griffith's collection number is *424* and that there are 2 specimen sheets of this number. Upon our request, Schuiteman provided digitized images of the 2 sheets for our study.

Since there are 2 sheets of Griffith's collection at K and since Renz did not cite the name of the herbarium housing the lectotype, his (1978: 64) inadvertent lectotypification is treated here as the first-step of the lectotypification process. Of the 2 sheets, one (barcode K000796944) bears a label showing the no. "*5326,*" 6 specimens, and Hooker's penciled floral drawings, and the other (barcode K000796945) bears 2 specimens. We here select the sheet (barcode K000796944) as the lectotype

(second-step).

Kraenzlin (1899), within his orchid treatment, placed *Diphylax* Hook. f. (a genus (including *Tsaiorchis* Tang & F.T. Wang) of 3 or 4 species with a distribution range Himalaya to South China; Mabberley, 2008: 278)) and *Platanthera* Rich. (a genus of 200 species (including *Piperia* Rydb.), predominantly Northern Hemispheric; Mabberley, 2008: 676) next each other; he transferred *Habenaria griffithii* to *Diphylax* and made the new combination *D. griffithii* (Hook. f.) Kraenzl.

Jin & al. (2012), based on molecular data and morphological evidence, found that *Habenaria griffithii* is also close to *Gennaria* Parl. (a monospecific genus restricted to the western Mediterranean and Macaronesia; Mabberley 2008: 354) and *Peristylus* Blume (a genus of 70 species distributed in China to the Pacific (Mabberley 2008: 648) and that *H. griffithii* is closest to *Gennaria*. Their finding supports placing *H. griffithii* in its own genus.

Schlechter (1926: 583) listed "*Dithrix* Schltr." He neither provided a description/diagnosis nor referred to Hooker (l.c.) even indirectly. Therefore, "*Dithrix* Schltr." was not validly published.

Soó von Bere (1929: 369) used "*Dithrix* Schlecht." and "*D. decipiens* Hook.f. Fl. Brit. Ind. VI. 1890. 165." and referred to "(*Habenaria decipiens* Hook. f. l.c. – *Hermium decipiens* Griff. Notul. III. 370.) – non Wight, *H. Griffithii* Hook. f. l.c. 197" (sic). He did not provide a description/ diagnosis for "*Dithrix* Schlecht." or refer to *H.* sect. *Dithrix*. Therefore, he did not validate "*Dithrix* Schlecht." Because of the invalidity of "*Dithrix* Schlecht.," "*D. decipiens*" was also not validly published. Furthermore, "*Herminium decipiens* Griff." does not exist. Griffith (posthumously) published "*Herminii* sp." (Griffith, 1851a: 270; 1851b: t. 285).

In spite of their invalid status, both "*Dithrix* Schltr." and "*Habenaria decipiens* Hook. f." were indexed by the Index Nominum Genericorum (Plantarum) (2012), and the Names in Current Use for Extant Plant Genera (2012) indexed both as follows:

Dithrix (J.D. Hooker) Schlechter, Notizbl. Bot. Gart. Berlin-Dahlem 9: 583. 22 Jul 1926.
Habenaria sect. *Dithrix* J.D. Hooker, Fl. Brit. Ind. 6: 133. Dec 1890.
TYPE: *Habenaria decipiens* J.D. Hooker 1890, non R. Wight 1851

The above data are included in the printed version of the Names in Current Use for Extant Plant Genera (Greuter & al. 1993: 366). The inclusion of *Dithrix* as an accepted generic name and the citation of a full reference to the basionym validate the generic name. On preface page XIII, R.K. Brummitt is credited for the data on vascular plant generic names. Therefore, Brummitt is author of the orchid genus *Dithrix*. The citation of "*Habenaria decipiens* J.D. Hooker" as the type species is treated as a correctable error for *H. griffithii* Hook. f. [In contrast, the International Plant Names Index (2012), had not indexed "*Dithrix* Schltr."]

Unaware of the inadvertent validation of *Dithrix* in 1993, Jin and Li (in Jin & al. 2012: 68-69) published the genus name *Nujiangia* X.H. Jin & D.Z. Li and typified it with *Habenaria griffithii*. They also made the new combination *N. griffithii* (Hook. f.) X.H. Jin & D.Z. Li. Besides the localities cited by Hooker, they added Yunnan, China to the range of this species. Since *Dithrix* and *Nujiangia* are typified by the same species, *Nujiangia* is superfluous and illegitimate.

We hereby transfer *Habenaria griffithii* to *Dithrix* and make the new combination *Dithrix griffithii*. A summary is provided below.

Dithrix (Hook. f.) Schltr. ex Brummitt, Regnum Veg. 129: 366. 1993. BASIONYM: *Habenaria* sect. *Dithrix* Hook.f., Fl. Brit. Ind. 6: 133, 165. Dec 1890. *Nujiangia* X. H. Jin & D. Z. Li, J. Syst. Evol. 50(1): 68. 2012, nom. superfl. & illegit. **TYPE SPECIES**: *D. griffithii* (Hook.f.) Ormerod & Gandhi (*H. griffithii* Hook.f.)

Dithrix griffithii (Hook. f.) Ormerod & Gandhi, comb.nov. BASIONYM: *Habenaria griffithii* Hook.f., Fl. Brit. Ind. 6: 197. Dec 1890. *Diphylax griffithii* (Hook. f.) Kraenzl., Orchid. Gen. Sp. 1(10): 599. 1899; *Nujiangia griffithii* (Hook. f.) X.H. Jin & D.Z. Li, J. Syst. Evol. 50: 68. 2012. **LECTOTYPE**: Afghanistan. 1862-63, *W. Griffith 424* (= Kew distribution no. *5326*) (K) (first-step by J. Renz in K. H. Rechinger, Fl. Iran. 126: 64. 1978); K barcode no. K000796944 (second-step designated here).

Distribution: Afghanistan, China, India, and Pakistan.

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